

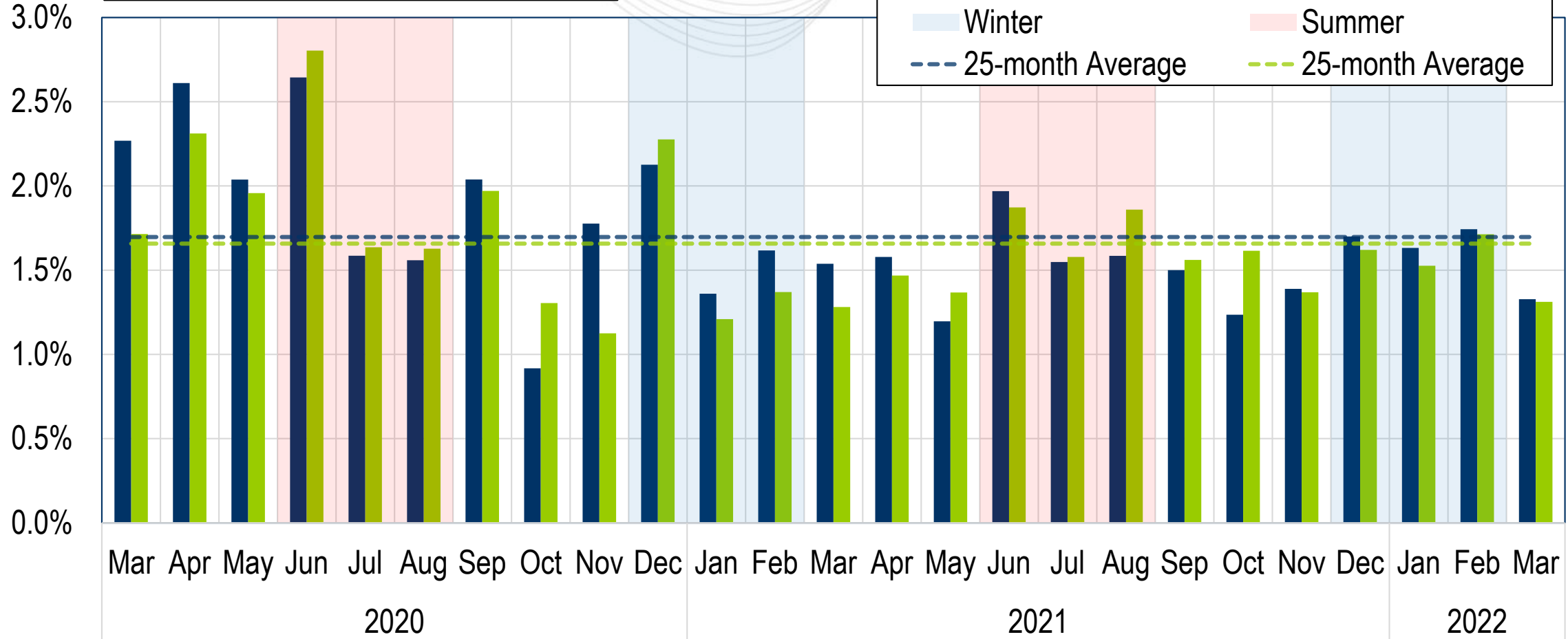


System Operations Report

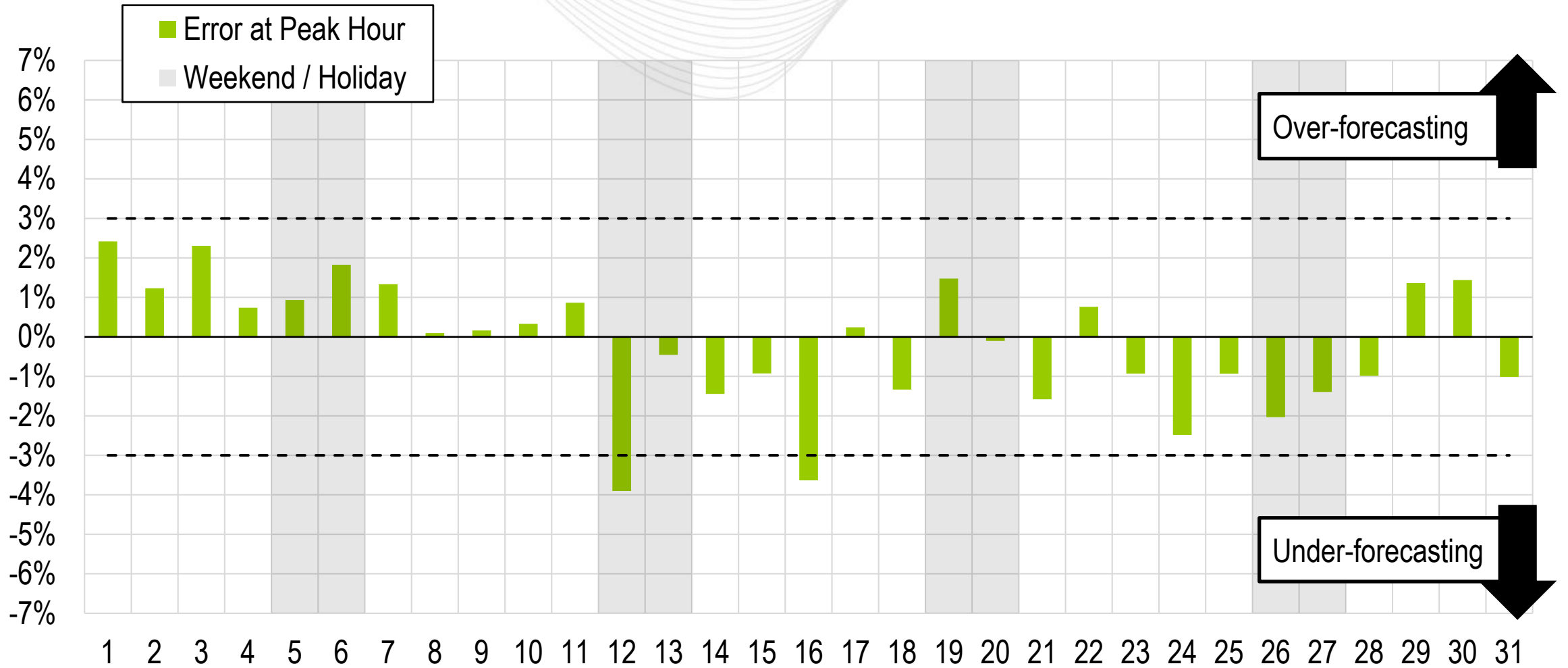
Hong Chen
Principal Engineer, Markets Coordination
MC Webinar
April 25, 2022

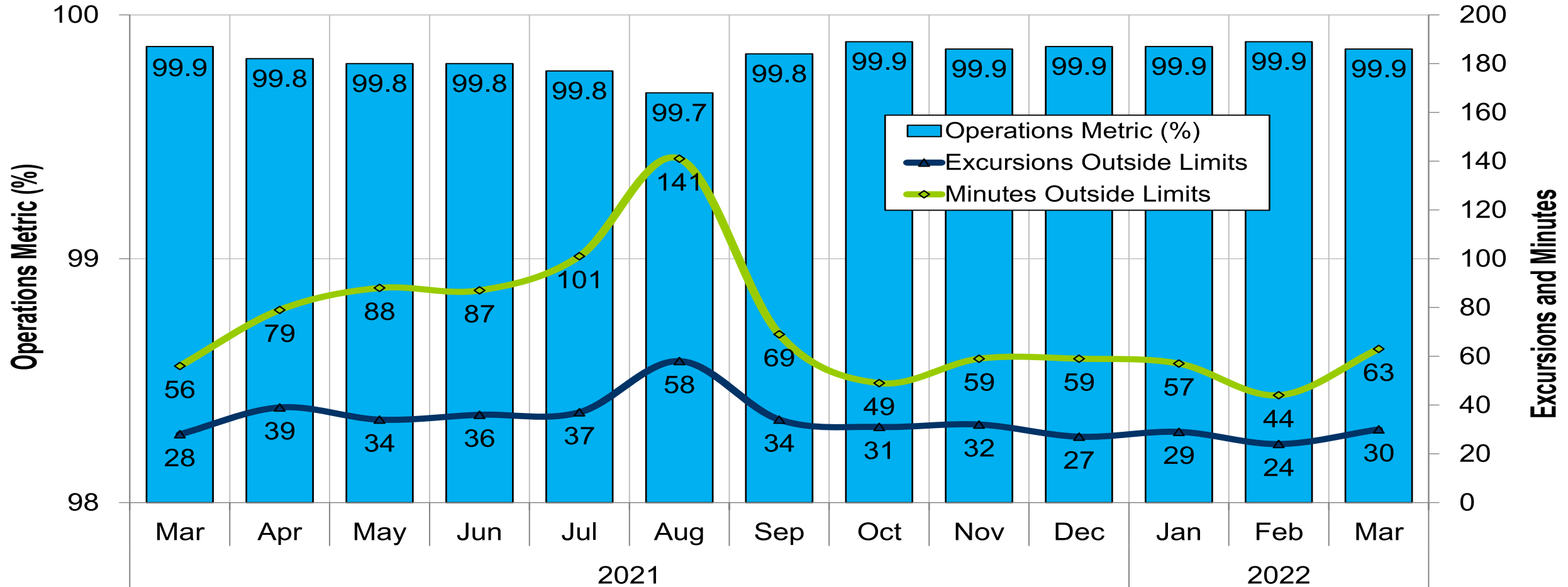
March 2022
 Hourly Error: **1.33%** Peak Error: **1.31%**

- All Hours
- Winter
- 25-month Average
- Peak Hours Only
- Summer
- 25-month Average



Daily Peak Forecast Error (March)

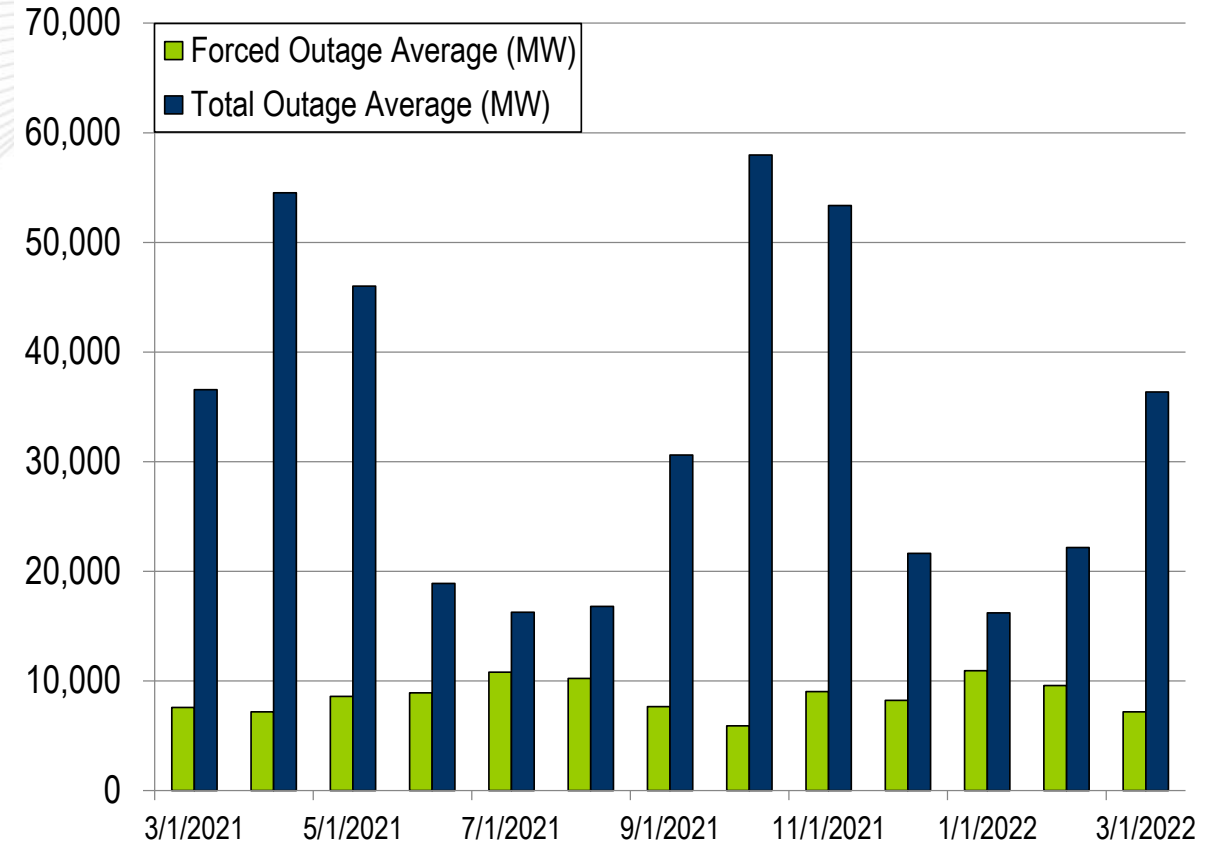
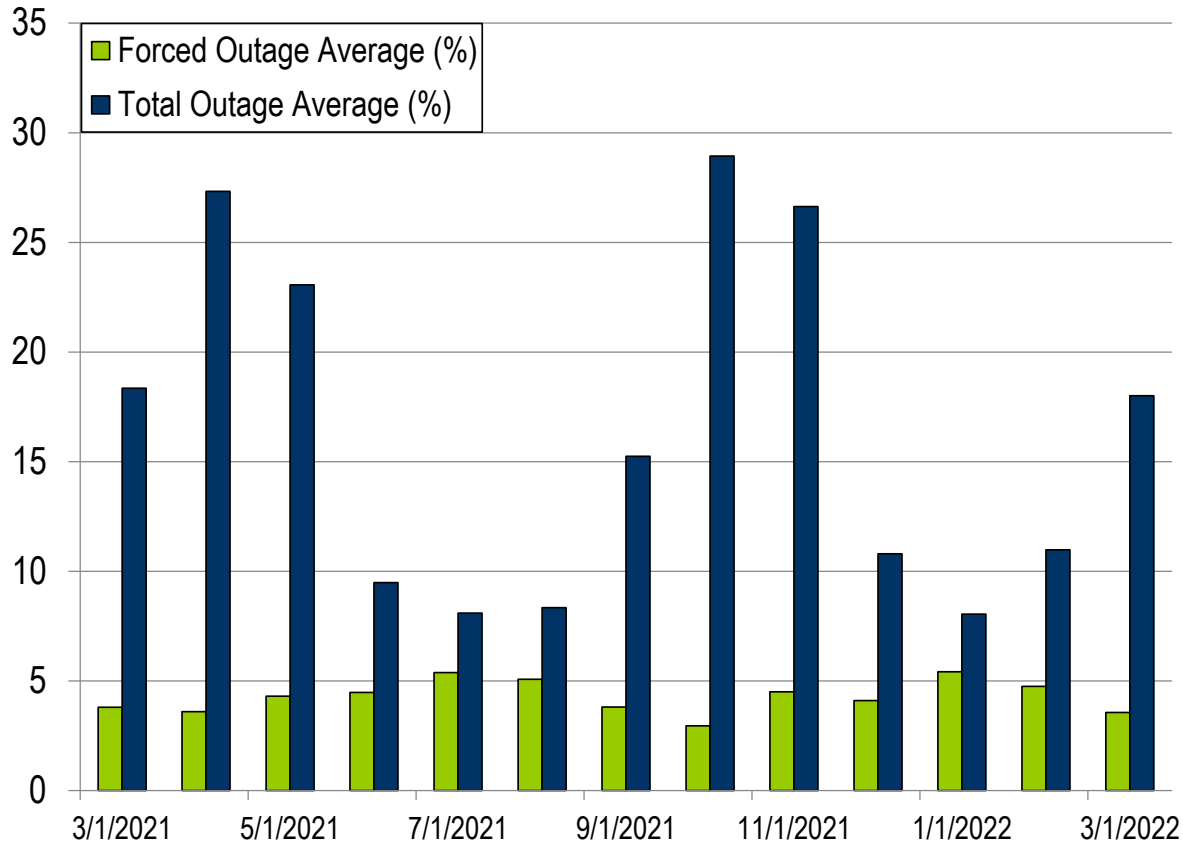




PJM's BAAL performance has exceeded the goal of 99% for each month in 2022.

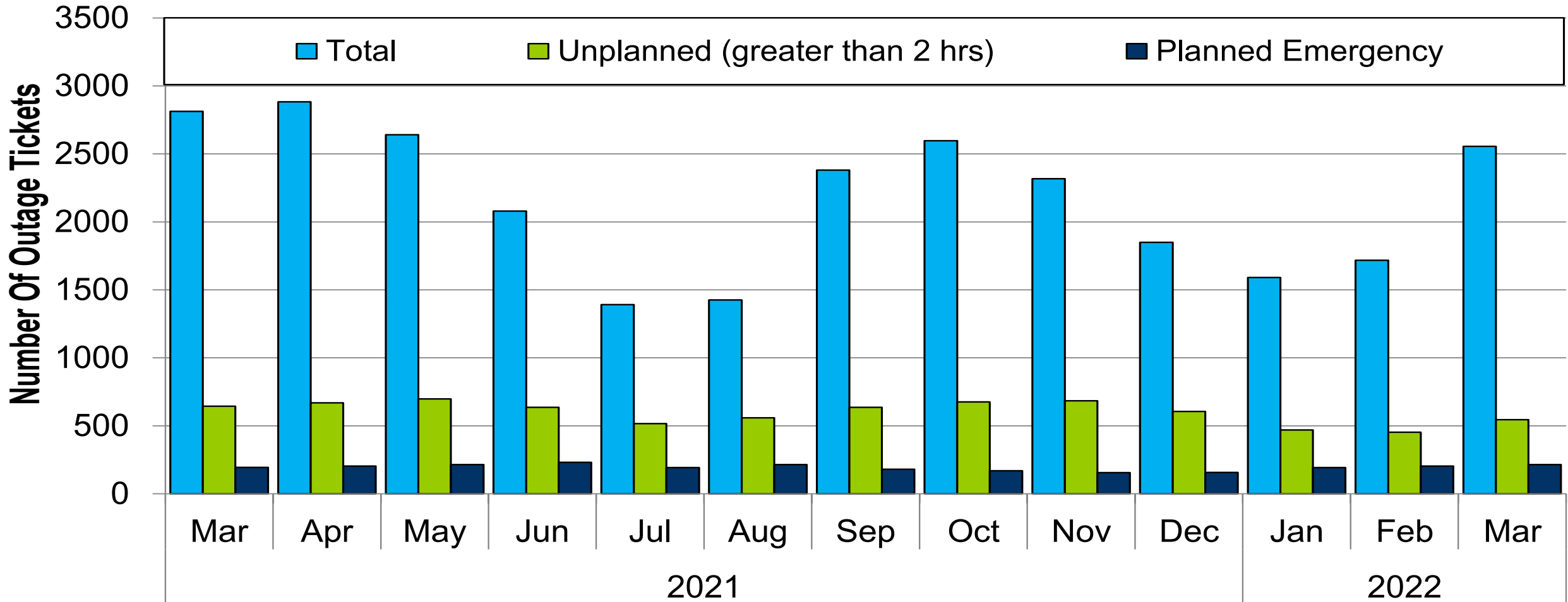
- One spinning event
- Three reserve sharing events with the Northeast Power Coordinating Council (NPCC)
- The following Emergency Procedures occurred:
 - 5 Post-Contingency Local Load Relief Warnings (PCLLRW)

- 5 Shortage Cases Approved
- The approved Shortage Cases occurred on:
 - 03/02/22:
 - 1 Shortage Case for 17:30
 - 1 Shortage Case for 17:35
 - Unit tripping during evening ramp
 - 03/12/22:
 - 1 Shortage Case for 10:25
 - Load and interchange increase and low ACE
 - 03/20/22:
 - 1 Shortage Case for 19:45
 - Load and interchange increase and low ACE
 - 03/21/22:
 - 1 Shortage Case for 06:45
 - Load came in higher than forecasted



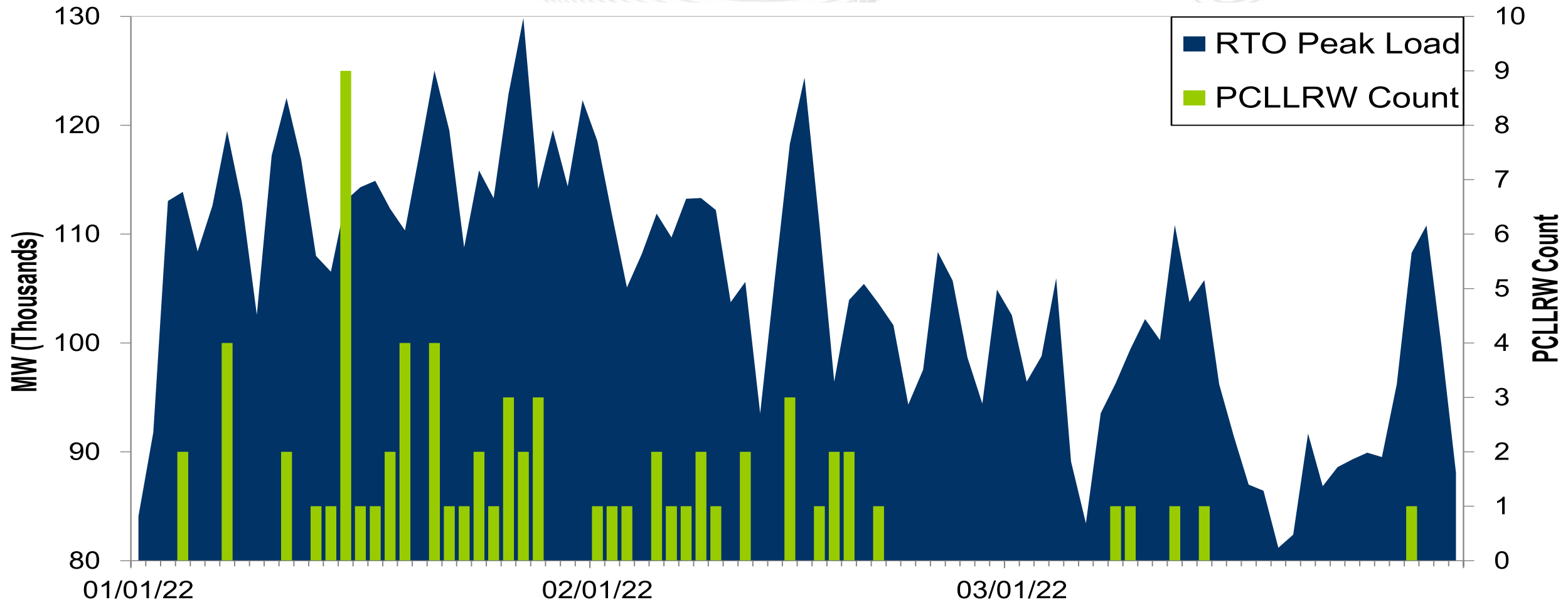
The 13-month average forced outage rate is 4.29% or 8,598 MW.
 The 13-month average total outage rate is 16.42% or 32,891 MW.

2021-2022 Planned Emergency, Unplanned, and Total Outages by Ticket



Note: "Unplanned Outages" include tripped facilities. One tripping event may involve multiple facilities.

PCLLRW Count Vs. Peak Load – Daily Values For 3 Months



Event	Date	Start Time	End Time	Duration	Region	Tier 1 Estimate (MW)	Tier 1 Response (MW)
1	03/03/22	12:20:36	12:27:57	00:07:21	RTO	1398.9	795.8

Event	Date	Start Time	End Time	Duration	Region	Tier 2 Assigned (MW)	Tier 2 Response (MW)	Tier 2 Penalty (MW)
1	03/03/22	12:20:36	12:27:57	00:07:21	RTO	286.7	286.7	0.0

*Tier 2 Response is equal to Tier 2 Assigned for events with duration less than ten minutes

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System Operations Report



Member Hotline

(610) 666 – 8980

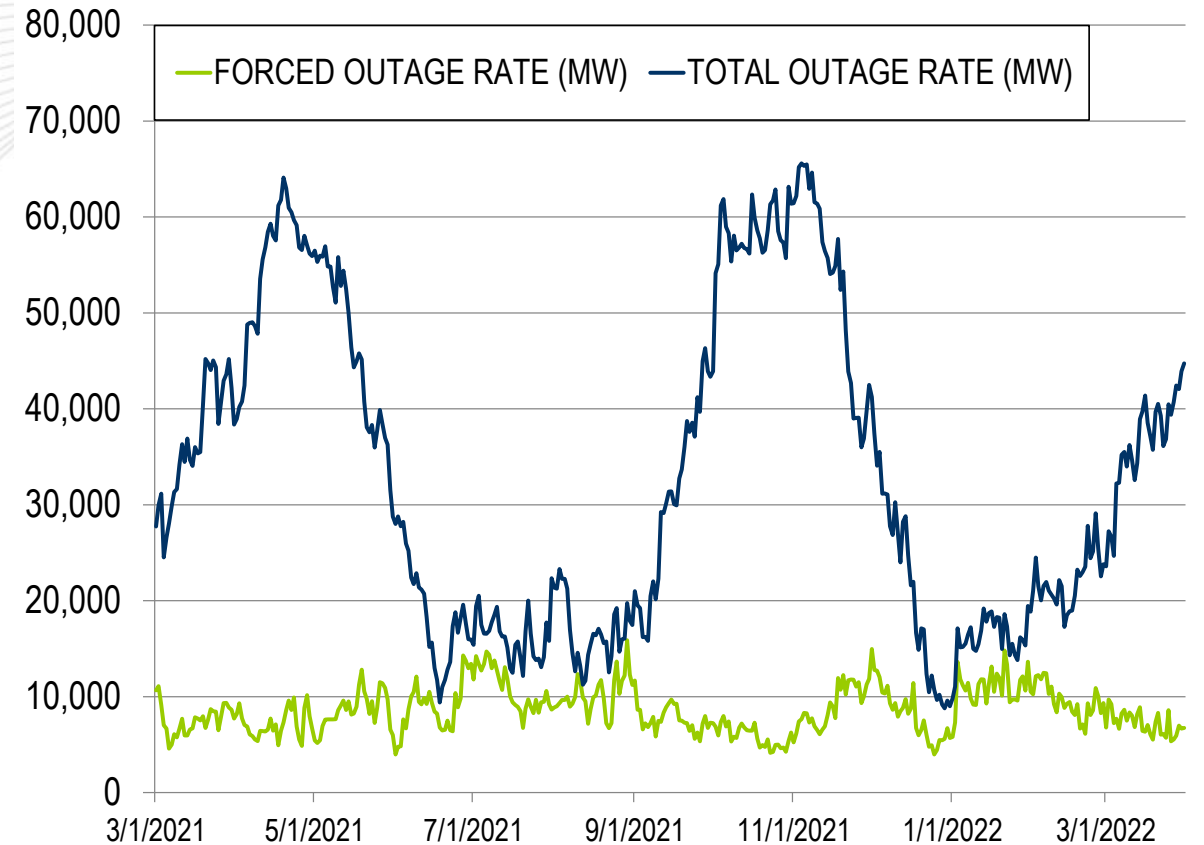
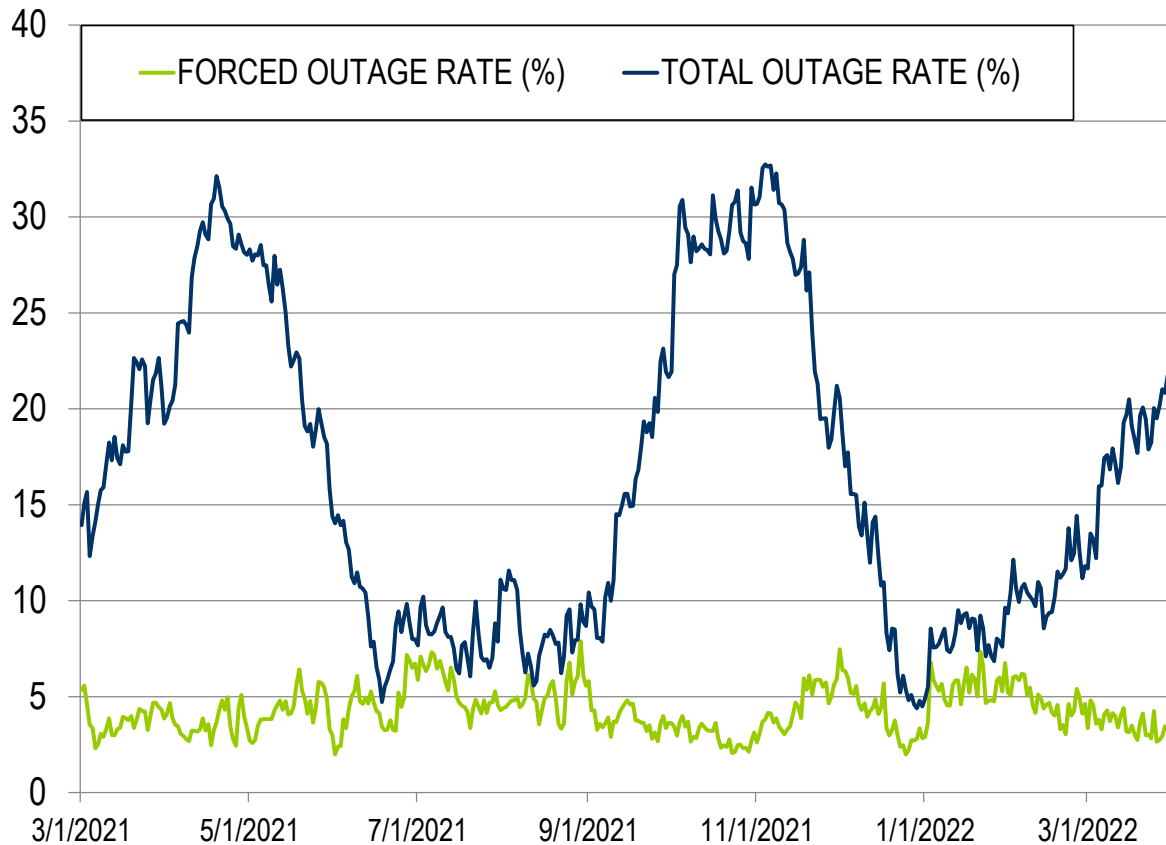
(866) 400 – 8980

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Appendix

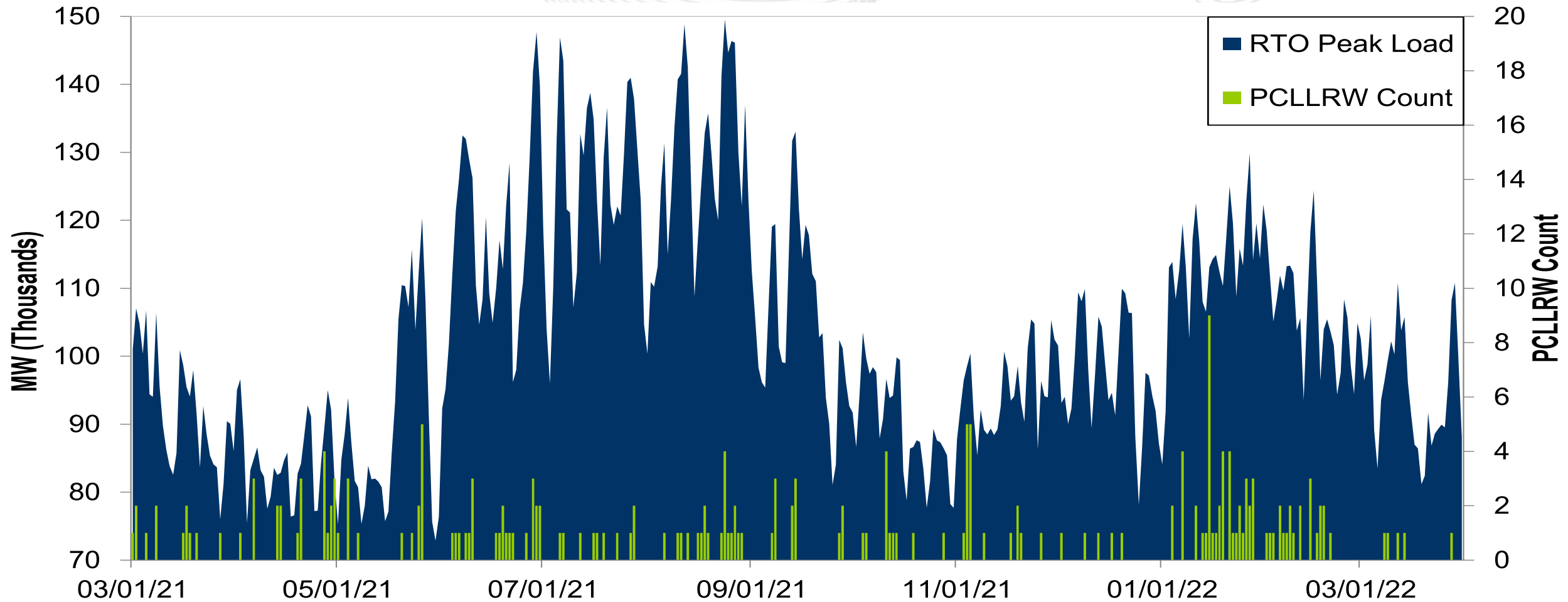
Goal Measurement: Balancing Authority ACE Limit (BAAL)

- The purpose of the new BAAL standard is to maintain interconnection frequency within a predefined frequency profile under all conditions (normal and abnormal), to prevent frequency-related instability, unplanned tripping of load or generation, or uncontrolled separation or cascading outages that adversely impact the reliability of the interconnection. NERC requires each balancing authority demonstrate real-time monitoring of ACE and interconnection frequency against associated limits and shall balance its resources and demands in real time so that its Reporting ACE does not exceed the BAAL ($BAAL_{LOW}$ or $BAAL_{HIGH}$) for a continuous time period greater than 30 minutes for each event.
- PJM directly measures the total number of BAAL excursions in minutes compared to the total number of minutes within a month. PJM has set a target value for this performance goal at 99% on a daily and monthly basis. In addition, current NERC rules limit the recovery period to no more than 30 minutes for a single event.



The 13-month average forced outage rate is 4.29% or 8,598 MW.
 The 13-month average total outage rate is 16.42% or 32,891 MW.

PCLLRW Count Vs. Peak Load – Daily Values For 13 Months



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